PATENT CLAIMS

1. A method of observing a multitude of objects which move in a space monitored by several sensors; the objects are detected by the sensors and are followed under continuing actualization by sensor tracks that supply object data; from the available sensor tracks those sensor tracks which originate from different sensors and which belong to the same object, are automatically associated with a system track, characterized in that an association of a sensor track with at least one system track is effected each time when a decision concerning a non-belonging to the system track cannot be made with certainty.

2. The method as defined in claim 1, characterized in that associated sensor tracks are subsequently continuously examined as to their continuing belonging to the associated system tracks, and are removed from the respective system track upon a determination of non-belonging and that a new system track is generated with each sensor track whose non-belonging to a system track has been determined.

3. The method as defined in claim 1 or 2, characterized in that the determination of non-belonging is not revised.

4. The method as defined in claim 2 or 3, characterized in that the examination of the continuance of the belonging of a sensor track to a system track is effected with the actualized sensor track.

5. The method as defined in one of claims 1-4, characterized in that a newly occurring sensor track is examined as to belonging with all the system tracks and an actualized system track is examined as to belonging only with the system tracks with which it is associated.

6. The method as defined in one of claims 1-5, characterized in that in each system track all associated sensor tracks are held, that one of the sensor tracks is designated as the leading sensor track (primary track) and the other sensor tracks are designated as subordinated sensor tracks and that with the leading sensor track at least the kinematics of the system tracks are determined.

7. The method as defined in claim 6, characterized in that the designation of the leading sensor track and the subordinated sensor tracks are effected on the basis of the ranking of the sensors which deliver them.

8. The method as defined in claim 5 and claim 6 or 7, characterized in that the examination of belonging of a newly occurring sensor track is effected only with the leading sensor track of the respective system track.

9. The method as defined in claim 5 and one of claims 6-8, characterized in that the examination of belonging of an actualized sensor track, which is a subordinated sensor track, is performed solely with the leading sensor track of the system tracks with which it is associated.

10. The method as defined in claim 5 and one of claims 6-9, characterized in that the leading sensor track of the system track with which it is associated, is changed, as concerns its kinematics and attributes, with an actualized sensor track, which is the leading sensor track.

11. The method as defined in one of claims 7-10, characterized in that a subordinated sensor track which can be associated only with one system track, is examined with the leading sensor track of the system track concerning the ranking of the sensors which delivers them, and in case of a higher rank of the sensor which delivers the subordinated sensor track, the leadership of the leading sensor track in the system track changes over to the subordinated sensor track if no further sensor tracks of the same sensor are associated with the system track.

12. The method as defined in claim 11, characterized in that in case further sensor tracks of the same sensor are associated with the system track, the system track is split up and a new system track for each further associated sensor track of the same sensor is generated, in case one of the further associated sensor tracks of the same sensor is not itself associated with another system track.

13. The method as defined in one of claims 1-12, characterized in that a newly generated system track which has only one leading sensor track, is examined with all subordinated sensor tracks of the other system tracks concerning their belonging to the newly generated system track and upon determination of a belonging of a respective subordinated sensor track, the latter is also associated with the newly generated system track.

14. The method as defined in one of claims 1-13, characterized in that the decision threshold concerning the non-belonging of a sensor track to a system track is measured quasi in accordance with the resolution capability of the sensor delivering the sensor track and the resolution capability of the sensor delivering the leading sensor track to the system track.